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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,393	12/07/2000	Kunihiko Take	09792909-4719	9869

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EXAMINER

KIBLER, VIRGINIA M

ART UNIT PAPER NUMBER

2623

DATE MAILED: 01/30/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,393

Applicant(s)

TAKE, KUNIIHIKO

Examiner

Virginia M Kibler

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/20/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment received on 11/20/03 has been entered. Claim 1 remains pending.

Claim Objections

2. Claim 1 is objected to because of the following informalities: "them" in line 24 should be changed. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (6,292,582) in view of Takagi et al. (6,438,438).

Regarding claim 1, Lin et al. ("Lin") discloses a semiconductor wafer examination system (Abstract, lines 1-3) including a defect classification device adapted to pick up an image of the surface of a defective semiconductor wafer, compare the defect image with an image of the surface of a normal semiconductor wafer, identify each defective area isolated as a characteristic area of a defect in the defect image (Col. 16, lines 30-51) on the basis of the outcome of the comparison and defect detection parameters (Col. 19, lines 54-61 and Col. 20, lines 1-9) for defining threshold values for defects and automatically determine the type of defect

Art Unit: 2623

of the defective area on the basis of a knowledge base for determining the type of defect according to the characteristic quantity of the defective area (Col. 29, lines 42-67). Lin further discloses a classification support device including a classification means for identifying the defective areas of a plurality of defect images on the basis of the normal image and the defect detection parameters and classifying the identified areas (Col. 29, lines 56-67), a defective area display means for displaying images and information generated by the defect classification and editing means for editing the defect detection parameters on the basis of the defective areas displayed by the defective area display means (Col. 17, lines 62-67 and Col. 18, lines 1-5), the editing means including defect detection parameter read means for reading out from a defect parameter storage device (Col. 8, lines 66-67, Col. 9, lines 1-3), and defect detection parameter manual selection means so that values may be selected for them by the user on the basis of the defect detection parameter shown on the defective area display means (Col. 7, lines 1-6; Col. 30, lines 27-48; Col. 32, lines 26-31) a classification result re-instructing means for manually re-classifying the result of the classification of the defective areas obtained by the classification means (Col. 30, lines 15-26) and a selection means for selecting classified defect image data for preparing the knowledge base from the plurality of defective areas as classified by the classification result re-instructing means (Col. 30, lines 27-48). Lin does not appear to expressly state displaying the plurality of defective areas as classified. However, Takagi et al. ("Takagi") teaches that it is known to display the plurality of defective areas as classified (Col. 4, lines 6-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the display means disclosed by Lin to include displaying the plurality

Art Unit: 2623

of defective areas as taught by Takagi in order provide the operator with information visually showing the result of the defect classification and enable the operator to change the information.

Response to Arguments

5. Applicant's arguments filed 11/20/03 have been fully considered but they are not persuasive.

Summary of Applicant's Argument: Lin does not describe making wafer examination systems more flexible by allowing the user to modify defect detection parameters on the basis of any defect detection areas. Neither Lin nor Takagi disclose editing means having defect detection parameter read means or defect detection parameter manual selection means as recited in amended claim 1.

Examiner's Response: Lin discloses allowing the user to modify defect detection parameters on the basis of defect detection areas (Col. 17, lines 62-67, Col. 18, lines 1-5; Col. 7, lines 24-38). Lin further discloses editing the defect detection parameters on the basis of the defective areas displayed by the defective area display means (Col. 17, lines 62-67, Col. 18, lines 1-5). Lin discloses the editing means including defect detection parameter read means for reading out from a defect parameter storage device (Col. 8, lines 66-67, Col. 9, lines 1-3), and defect detection parameter manual selection means so that values may be selected for them by the user on the basis of the defect detection parameter shown on the defective area display means (Col. 7, lines 1-6; Col. 30, lines 27-48; Col. 32, lines 26-31).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia M Kibler whose telephone number is (703) 306-4072. The examiner can normally be reached on Mon-Thurs 8:00 - 5:30 and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/732,393

Page 6

Art Unit: 2623

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

VK

VK
1/28/04

MEHRDAD DASTOURI
PRIMARY EXAMINER

Mehrdad Dastouri